

REMARKS

This Application has been carefully reviewed in light of the Office Action electronically sent March 11, 2009. Claims 1, 5, 8-12, 33, 36, and 39-43 are pending in this application and are rejected. For at least the reasons discussed below, Applicant respectfully requests reconsideration and favorable action in this case.

Section 103 Rejections

The Examiner rejects Claims 1-2, 5, 8-12, 33-34, 36, and 39-43 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 5,835,646 issued to Yoshimura et al. ("*Yoshimura*") in view of U.S. Patent No. 6,303,040 issued to Oh et al. ("*Oh*") and U.S. Patent Publication No. 2004/0156597 issued to Kaneko ("*Kaneko*").

Claim 1 recites, *inter alia*, “a waveguide disposed within said polymer layer between said first and second optically active areas on said first and second surfaces, where said waveguide comprises a photosensitive, fluorinated polymer core and a polymer cladding for transmitting light therebetween; and one or more additional structures embedded within said polymer layer disposed between said first and second substrates.” The Office Action cites to *Yoshimura* for a teaching of the first and second substrates and the associated waveguide disposed with a polymer layer and cites to *Kaneko* for the teaching of “additional structures” embedded within the polymer layer disposed between two substrates. The Office Action further states that it would have been obvious to modify *Yoshimura* such that additional structures are embedded within its photorefractive index polymer (which the Office Action equates to the claimed polymer layer) in order to provide additional protection for those structures (due to the fact the *Kaneko* includes a polymer material – underfill material 40 – that serves to protect certain structures).

The question raised under 35 U.S.C. § 103 is whether the prior art taken as a whole would suggest the claimed invention taken as a whole to one of ordinary skill in the art at the time of the invention. Even assuming for the sake of argument that all elements of a claim are disclosed in various prior art references, the claimed invention taken as a whole still cannot be said to be obvious without some reason why one of ordinary skill at the time of the invention would have been prompted to modify the teachings of a reference or combine the

teachings of multiple references to arrive at the claimed invention.

The U.S. Supreme Court's decision in *KSR Int'l Co. v. Teleflex, Inc.* set forth the requirement that Examiners provide an explanation as to why the claimed invention would have been obvious. *KSR Int'l Co. v. Teleflex, Inc.*, 127 S.Ct. 1727 (2007). The analysis regarding an apparent reason to combine the known elements in the fashion claimed in the patent at issue "should be made explicit." *KSR*, 127 S.Ct. at 1740-41. "Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *Id.* at 1741 (internal quotations omitted).

The examination guidelines issued by the United States Patent and Trademark Office ("PTO") in response to the *KSR* decision further emphasize the importance of an explicit, articulated reason why the claimed invention is obvious. Those guidelines state, in part, that "[t]he key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious." M.P.E.P. § 2141. The guidelines further describe a number of rationales that, in the PTO's view, can support a finding of obviousness. M.P.E.P. § 2143. The guidelines set forth a number of particular findings of fact that must be made and explained by the Examiner to support a finding of obviousness based on one of those rationales.

Applicant respectfully submits that such a showing has not been made in the present case. Although *Kaneko* discloses protecting circuit structures with a polymer layer, there is no explanation as to why it would be obvious to provide such additional structural elements in the device of Figure 25 of *Yoshimura* in the first place. As explained in Applicant's Response to the Office Action mailed August 9, 2007, *Kaneko* does not disclose the first and second substrates, waveguide, and polymer layer as recited in Claim 1. The fact that *Kaneko* discloses structures included within a generic polymer layer in a device that is different than what is recited in Claim 1 does not make it obvious that any device having a polymer layer may have structures positioned within the polymer layer. Applicant respectfully submits that that is no motivation or suggestion in *Yoshimura* to place structures within the photorefractive index polymer disclosed in Figure 25 of *Yoshimura*.

For at least these reasons, Applicant respectfully submits that Claim 1 is in condition for allowance. Claim 33 includes limitations that are similar, although not identical, to those of Claim 1 and is allowable for similar reasons. Therefore, Applicant respectfully requests reconsideration and allowance of Claims 1 and 33, as well as the claims that depend from these independent claims.

CONCLUSION

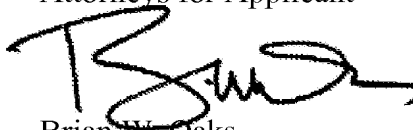
Applicant has made an earnest attempt to place this case in condition for allowance. For at least the foregoing reasons, Applicant respectfully requests full allowance of all the pending claims.

If the Examiner feels that a telephone conference would advance prosecution of this Application in any manner, the Examiner is invited to contact Brian W. Oaks, Attorney for Applicant, at the Examiner's convenience at (512) 322-5470.

Applicant encloses a Petition for Three Month Extension of Time and authorizes the Commissioner to charge the \$1,110.00 Extension fee to Deposit Account No. 50-2148 of Baker Botts L.L.P. Although Applicant believes no other fees are due, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 50-2148 of Baker Botts L.L.P.

Respectfully submitted,

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Date: August 21, 2009

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